

**RIZZO ASSOCIATES, INC.**

**ENGINEERS AND ENVIRONMENTAL SCIENTISTS**

## **Abbreviated Notice of Resource Area Delineation**

**Massachusetts Wetlands Protection Act  
(M.G.L. I3I Section 40) and Town of Arlington  
Wetland Bylaw (Article 8)**

**Mugar Parcel  
Arlington, Massachusetts**

**Submitted to:  
Arlington Conservation Commission**

**Prepared by:  
Rizzo Associates, Inc.**

**July 11, 2000**

**Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

DEP File Number:

**WPA Form 4A – Abbreviated Notice of Resource Area Delineation**Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 and  
Arlington By-Law for Wetlands Protection (Title V, Article 8)

Provided by DEP

**A. General Information**

**Important:**  
When filling out  
forms on the  
computer, use  
only the tab  
key to move  
your cursor -  
do not use the  
return key.

**1. Applicant:**

Finard Development

Name	E-Mail Address (if applicable)	
3 Burlington Woods Drive		
Mailing Address		
Arlington	MA	01803
City/Town	State	Zip Code
Phone Number	Fax Number (if applicable)	

**2. Representative (if any):**

Rizzo Associates, Inc.

Firm

Bernie Raftery

bernier@rizzo.com

Contact Name

E-Mail Address (if applicable)

235 West Central Street

Mailing Address

Natick

MA

01760

City/Town

State

Zip Code

(508) 903-2426

(508) 903-2001

Phone Number

Fax Number (if applicable)

**3. Property Owner (if different from applicant):**

Name

Mailing Address

City/Town

State

Zip Code

**4. Total Fee:**

\$ 1000.00

(from Appendix B: Wetland Fee Transmittal Form)

**5. Project Location:**

Route 2

Arlington

Street Address

City/Town

13/16

H-7A,H-8, / L-5A

Assessors Map/Plat Number

Parcel /Lot Number

**6. Registry of Deeds:**

Middlesex

13949/10433/9710

001/440/345

County

Book

Page

205975

Certificate (if Registered Land)



# Massachusetts Department of Environmental Protection

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### B. Area(s) Delineated

1. Bordering Vegetated Wetland (BVW):

2757 LF

Linear Feet of Boundary Delineated

2. Check all methods used to delineate the Bordering Vegetated Wetland (BVW) boundary:

- DEP BVW Field Data Form (attached)
- Other Methods for Determining the BVW boundary (attach documentation):
- 50% or more wetland indicator plants
- Saturated/inundated conditions exist
- Groundwater indicators
- Direct observation
- Hydric soil indicators
- Credible evidence of conditions prior to disturbance.

3. Indicate if any other resource area(s) are delineated:

Resource Area(s):

Bank

Bordering Land Subject to Flooding

### C. Additional Information

Include the following with this Abbreviated Notice of Resource Area Delineation:

- USGS or other map of the area (along with a narrative description, if necessary), containing sufficient information for the Conservation Commission and the Department to locate the site.
- Plans identifying the boundaries of the Bordering Vegetated Wetlands (BVW) (and other resource areas, if applicable).
- Other material identifying and explaining the determination of resource area boundaries shown on plans (e.g., a DEP BVW Field Data Form).
- List the titles and final revision dates for all plans and other materials submitted with this Abbreviated Notice of Resource Area Delineation.



## Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

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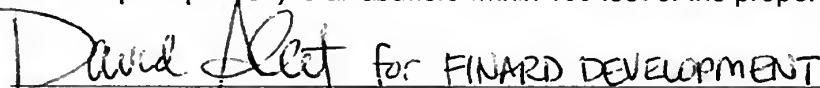
### D. Fees

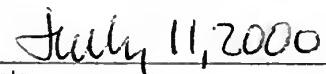
The fee for work proposed under each Abbreviated Notice of Resource Area Delineation must be calculated and submitted to the Conservation Commission and the Department (see Instructions and Appendix B: Wetland Fee Transmittal Form). A separate By-Law fee is also payable to the Town of Arlington. (See Arlington Supplemental Information and Instructions)

### E. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Abbreviated Notice of Resource Area Delineation and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

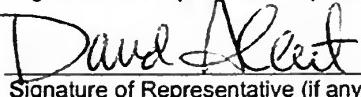
I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

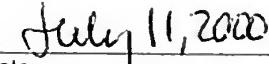
  
Signature of Applicant

  
Date

Signature of Property Owner (if different)

Date

  
Signature of Representative (if any)

  
Date

#### For Conservation Commission:

Two copies of the completed Abbreviated Notice of Resource Delineation (WPA Form 4A), including supporting plans and documents; two copies of pages 1 and 2 of Appendix B; and the city/town fee payment must be sent to the Conservation Commission by certified mail or hand delivery.

#### For DEP:

Two copies of the completed Abbreviated Notice of Resource Delineation (WPA Form 4A), including supporting plans and documents; two copies of pages 1 and 2 of Appendix B; and a copy of the state fee payment must be sent to the DEP Regional Office (see Appendix A) by certified mail or hand delivery. The DEP copies must be sent at the same time as the application submission to the Conservation Commission. Failure by the applicant to send copies in a timely manner may result in dismissal of the Abbreviated Notice of Resource Area Delineation.

with elevation approximately 5.8 ft. Sheet A-2 provides the location of these wetland resource areas.

USGS Boston North Quadrangle, indicates that no perennial streams exist in the vicinity of the Site. The topography of the Site investigated is nearly level with ground surface elevations ranging from approximately 4 to 6 feet National Geodetic Vertical Datum (NGVD).

Soils within a majority of the Site are mapped by the NRSC (Middlesex Co. Interim Soil Survey 88-89) as belonging to the Swansa muck and Udorthents Wet Substratum Complexes.

## 4.0 Wetland Delineation

Using the technical criteria outlined in Section 2.0, the boundaries of four wetland systems were identified within and adjacent to the Site. These boundaries were marked in the field with a consecutively numbered and letter coded blue surveyor's ribbon (A1-A17, B1-B30, C1-C13, and D1-D16) and are depicted on the Site Plans found in Appendix A. All four wetland systems are within 100-year floodplain and qualify as Bordering Land Subject to Flooding and Wetland Areas A, C, and D contain intermittent streams that qualify as Bank. Vegetation, soil, and hydrological data was collected at four transects, in accordance with the MA DEP guidelines for identifying wetland areas. Data from these plots are recorded on MA DEP Data forms included in Appendix B. Table 1 summarizes the vegetation that was observed in the identified wetland areas. A description of each identified wetland area's vegetation, hydrology and soils follows.

**Table I**

**Observed Vegetation Species – Mugar Parcel**

Common Name	Scientific Name	Indicator Status*
<b>Trees:</b>		
Red maple	<i>Acer rubrum</i>	FAC
Gray birch	<i>Betula populifolia</i>	FAC
Pin oak	<i>Quercus palustris</i>	FACW
Box elder	<i>Acer negundo</i>	FACW+
Weeping willow	<i>Salix babylonica</i>	FACW-
Big-tooth aspen	<i>Populus grandidentata</i>	FACU-
<b>Saplings:</b>		
Big-tooth aspen	<i>Populus grandidentata</i>	FACU-
<b>Shrubs:</b>		
Multiflora rose	<i>Rosa multiflora</i>	FACU

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Common greenbrier	<i>Smilax rotundifolia</i>	FAC
Red-osier dogwood	<i>Cornus stolonifera</i>	FACW+
Raspberry	<i>Rubus idaeus</i>	FAC-
<b>Herbaceous Plants:</b>		
Common reed	<i>Phragmites australis</i>	FACW+
Sensitive fern	<i>Onoclea sensibilis</i>	FACW
Cinnamon fern	<i>Osmunda cinnamomea</i>	FACW
Royal fern	<i>Osmunda regalis</i>	OBL
Purple Loosestrife	<i>Lysimachia salicaria</i>	FACW+
Rough-stemmed goldenrod	<i>Solidago rugosa</i>	FAC

\* Indicator Status

Obligate occur in wetlands with a frequency of <99%.

Facultative Wetland occur in wetlands with a frequency of 67 to 99%.

Facultative occur in wetlands with a frequency of 33 to 66%.

Facultative Upland occur in wetlands with a frequency of 1 to 33%.

Upland occur in wetlands in other regions.

Source: Reed, P.B., Jr. 1988. National List of Plant Species That Occur in Wetlands: Northeast (Region 1). National Ecology Research Center, U.S. Fish and Wildlife Service. St. Petersburg, FL, and the 1995 Supplement.

### **Wetland Area A**

This approximately 1.09 acre wetland area is an emergent marsh located in the southern portion of the property adjacent to Route 2. The wetland is dominated by a monotypic community of common reed (*Phragmites australis*) which also extends into the surrounding upland areas. The upland surrounding this wetland is dominated by a stand of staghorn sumac (*Rhus typhina*) and common raspberry (*Rubus idaeus*).

Indications of hydrology on this wetland include standing water, oxidized rizospheres, and high chroma redoximorphic features. Hydrological sources to this wetland includes a partially clogged box culvert which lies under Route 2 and overland flow.

The soils in this wetland range from very poorly drained organic soil to various types of fill including possible dredge spoils and construction and demolition debris. The boundary of this wetland is partially defined by the limits of past filling activity.

### **Wetland Area B**

This approximately 1.20 acre wetland system, which occupies the central portion on the Site. This wetland has a mix vegetation community of forest, scrub shrub and emergent vegetation. Dominant trees in the

forested portions include big-tooth aspen (*Populus grandidentata*), gray birch (*Betula populifolia*), and pin oak (*Quercus palustris*). The shrub community is largely dominated by multiflora rose (*Rosa multiflora*), raspberry (*Rubus idaeus*), and red-osier dogwood (*Cornus stolonifera*). The herbaceous community is dominated by a mix of sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), and royal fern (*Osmunda regalis*).

This wetland system is hydrologically isolated. Indications of hydrology in this wetland include wetland drainage patterns and saturated soil conditions.

The soils in this wetland area range from poorly drained fine textured mineral soils to various types of historically and recently deposited fill. Field indicators of the hydric soils identified included low chroma matrix and redox depletions.

### **Wetland Area C**

This approximately .14 acre wetland area consists of an intermittent stream which lies adjacent to the athletic field along the eastern property boundary. A portion of this wetland areas lies off the property. It is dominated by several weeping willows (*Salix babylonica*). Dominant shrubs in this wetland area include glossy buckthorn (*Rhamnus alnifolia*) and greenbrier (*Smilax rotundifolia*). The limits of this wetland area are defined the banks of the intermittent stream.

### **Wetland Area D**

This approximately .34 acre wetland system is a predominantly forested and scrub shrub wetland located in the south eastern portion of the property. The dominant trees in this wetland are pin oak and box elder (*Acer negundo*) and the shrub community is dominated by red-osier dogwood. The ground cover in this wetland is dominated by sensitive fern, soft rush (*Juncus effusus*) and purple loosestrife (*Lythrum salicaria*).

Indications of hydrology in this wetland include standing water, wetland drainage patterns, and shallow root systems. This wetland is connected to the intermittent stream that lies between the eastern property boundary and the adjacent athletic field.

The soils found within this wetland are poorly drained and very poorly drained mineral soils. Typical field indicators of hydric soils identified

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**Mugar Parcel**

**6 Arlington, Massachusetts**

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included low chroma matrix and redox depletions. Field observations also indicated that the soils in this area also consist of various types of fill.

## **5.0 Summary**

Using the technical criteria outlined in the Section 2.0, the Site was investigated for the presence of wetland resource areas as defined by MA WPA and the Bylaw. The identified wetland resources areas depicted in Site Plans found in Appendix A meet the requirements to qualify as wetland resource areas under protection of the MA WPA and the Bylaw. Table 2 below, summarizes the wetland resource areas identified.

**Table 2**

**Wetland Resource Area Summary**

	<b>Wetland Resource Area</b>
Wetland Area A	<ul style="list-style-type: none"><li>▪ Bordering Vegetated Wetland (MA WPA/Bylaw)</li><li>▪ Bank (Intermittent Stream)</li><li>▪ Bordering Land Subject to Flooding (Ele. 8 ft.)</li></ul>
Wetland Area B	<ul style="list-style-type: none"><li>▪ Vegetated Wetland (Bylaw)</li><li>▪ Bordering Land Subject to Flooding (Ele. 8 ft.)</li></ul>
Wetland Area C	<ul style="list-style-type: none"><li>▪ Bordering Vegetated Wetland (MA WPA/Bylaw)</li><li>▪ Bank (Intermittent Stream)</li><li>▪ Bordering Land Subject to Flooding (Ele. 8 ft.)</li></ul>
Wetland Area D	<ul style="list-style-type: none"><li>▪ Bordering Vegetated Wetland (MA WPA/Bylaw)</li><li>▪ Bank (Intermittent Stream)</li><li>▪ Bordering Land Subject to Flooding (Ele. 8 ft.)</li></ul>

## **6.0 References**

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. US Army Engineer Waterways Experiment Station, Vicksburg, MS.

FEMA July 19, 1982. Flood Insurance Rate Map ,Town of Arlington, Massachusetts Community Panel Number 250177 0002B. Federal Emergency Management Agency.

MADEP, 1995. Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act. Massachusetts Department of Environmental Protection, Boston, MA.

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- NEIWPCC. 1998. Field Indicators for Identifying Hydric Soils in New England. New England Interstate Water Pollution Control Commission.
- NRCS Middlesex County Interim Soil Survey Field Sheets. 1988-1989.
- Reed, P. B. 1988. National List of Plant Species That Occur in Wetlands: Northeast (Region 1). United States Fish and Wildlife Service.
- USGS. 1985. Topographic Map, Boston North Massachusetts Quadrangle. United States Geologic Survey.